

REMARKS

Claims 1-24 are all the claims pending in the application. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Drawing Objections

The Examiner objected to Drawings indicating that the proposed amendment to the drawings fails to correct the drawing objection set forth in the previous office action since “X” and “Y” are being claimed in relation to “ $\tan(1^\circ)$ ” and “D”. Applicants submit that Figure 4 shows both X and D. These cannot be shown with any more particularity as the mathematical relationship encompasses a range of values not a single value. Furthermore, one skilled in the art would easily understand the relationships claimed based on this description. Figure 4 currently shows the relationships between the variables as used in the equation, thus, adding the equation to the figures is not required under 35 U.S.C. § 113. Because a more detailed figure is not necessary for understanding of the invention, Applicants respectfully request that the Examiner withdraw this objection.

Response to Amendment

The Examiner alleges that the Amendment filed January 30, 2006, is objected to under 35 U.S.C. § 132(a) because it introduces new matter into the disclosure. In particular, the Examiner alleges that claims 1 and 14 have been amended to include the value 0.000291, and thus, the amendment is not supported by the specification. Applicants point out that the value 0.000291 is the numeric value of the term “ $\tan(1^\circ)$ ” as previously recited in claims 1 and 14. Thus, no new matter has been introduced. This is also supported by Expression 1 of the specification at page 7, line 21. An example of the derivation of this value is shown below:

$$\tan (1') = \tan (1/60) = \tan (0.0167) = .000291$$

Claim Rejections - 35 U.S.C. § 112, First Paragraph

The Examiner seems to indicate that the reason for this objection is based on the newly added matters as set forth in the Response to Amendment section of the Office Action.

Applicants submit that because the amendment of “tan (1’)” to “0.000291” is not new matter, but instead a simple mathematical result, this rejection is in error and should be withdrawn.

Claim Objections

The Examiner objected to claims 1-24 for various informalities. Applicants submit that the present claim amendments obviate this objection. However, regarding the objection to the phrase “the distance between the display panel and point . . . set to 500 mm or more” recited in claims 6 and 19, Applicants submit that this point, as recited, is within the three-dimensional visible range and is described in this manner within the claims.

Claim Rejections - 35 U.S.C. § 103(a) - Claims 1, 3, 11-14, 16 and 24

The Examiner rejected claims 1, 3, 11-14, 16 and 24 as being unpatentable over Ichinose et al. (US 4,987,487). Applicants traverse this rejection as follows.

The Examiner alleges that Ichinose teaches or suggests many of the features recited in claims 1 and 14, but further relies on: (1) unsupported “simple geometry”; and (2) a further modification by alleging that a minimum angular separation of eyesight of 1.0 or one minute is well known.

Furthermore, despite the unsupported features imported by the Examiner in making this rejection, Applicants submit that the Examiner has failed to establish *prima facie* obviousness. In particular, the Examiner has failed to provide a motivation, teaching or suggestion that would

have led the skilled artisan at the time of the invention to the claimed combination. Furthermore, the Examiner has failed to provide objective evidence to support the rejection. Instead, the Examiner modifies a single reference until the resultant combination allegedly teaches all the features of Applicants' claims.

For example, in the rejection the Examiner allegedly derives the mathematical relationship $1/L > 25.4/(DIS * \tan(a))(dpi)$ based on the disclosure of Ichinose. However, the Examiner concedes that Ichinose fails to teach the recited equation $X \geq 25.4/(D * 0.000291)$. To compensate for this deficiency, the Examiner alleges that it is well-known in the art that general eyesight is 1.0, which means a minimum angular separation, is 1/60 degree or one minute. The Examiner plugs this value into the equation $1/L > 25.4/(DIS * \tan(a))(dpi)$ to arrive at $X \geq 25.4/(D * 0.000291)$.

First, Applicants submit that the mathematical derivations were derived by the Examiner and are not themselves taught or suggested by Ichinose. Second, the contention by the Examiner that "eyesight is 1.0, which means a minimum angular separation, is 1/60 degree or one minute" is also unsupported (except by the specification of the Applicants). The Federal Circuit has held that in order to take such notice (such as alleging that something is "well-known" in the art), the basis for such reasoning must be set forth explicitly. MPEP § 2144.03 (B) (citing *In re Soli*, 317 F.2d 941, 946 (CCPA 1963)). Further, the Examiner must provide specific factual findings predicated on sound technical and scientific reasoning to support the conclusion of common knowledge. *Id.* Thus, Applicants submit that because the Examiner's official notice is wholly

unsupported by any documentary evidence or logical reasoning, this “official notice” is improper.

Third, assuming for the sake of argument, that one of ordinary skill in the art would recognize the mathematical expressions derived by the Examiner and the “official notice” that eyesight is 1.0, which means a minimum angular separation, is 1/60 degree or one minute, Applicants submit that the Examiner has provided no motivation, teaching or suggestion to combine the minimum angle of separation with the derived mathematical expression. As a basic requirement of obviousness, the Examiner must present some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the teachings as the Examiner attempts. MPEP §2143 Furthermore, the motivation must be found in the prior art, not in the Applicant’s disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991)

However, the Examiner has failed to provide any such motivation. Furthermore, the only motivation to make the combination attempted by the Examiner comes from the Applicants’ own disclosure. Specifically, the present Application describes the study and discovery of the unrecognized problem related to the definition of a three-dimensional image and viewer fatigue. (specification, page 8, lines 15-20). As a result of this study, Applicants discovered that the visibility of the three-dimensional images had drastically reduced when the viewer significantly lacks perception of the corresponding feature points in the right and left images, which cause the fatigue. (specification, page 9, lines 2-7) Further, the Applicants discovered that to completely

prevent the lack of feature points, the definition of the three-dimensional image need to be no less than the resolution by the eyesight of a viewer. (specification, pages 9 and 10)

Thus, Applicants recognized the problem of viewer fatigue and resolve this by combining the viewing geometries with the minimum viewing angle. While the Examiner appears to derive similar equations within the rejection, Applicants submit that this is a result of hindsight analysis as the Examiner has failed to provide any objective evidence to support the derived combination.

Therefore, Applicants submit that because the Examiner has failed to provide the necessary objective evidence to establish a *prima facie* case of obviousness, the rejection of claims 1, 3, 11-14, 16 and 24 is in error and should be withdrawn.

Claim Rejections - 35 U.S.C. § 103(a) - Claims 2, 4, 15 and 17

The Examiner rejected claims 2, 4, 15 and 17 as being unpatentable over Ichinose as applied above, in further view of Isono et al. (US 5,315,377). Applicants respectfully traverse this rejection.

Because Isono fails to provide a motivation, teaching or suggestion to make the above modifications attempted by the Examiner with regard to Ichinose, this rejection should also be withdrawn as the Examiner has failed to establish a *prima facie* case of obviousness. Thus, Applicants submit that claims 2, 4, 15 and 17 are allowable over the applied combination for at least this reason.

Additionally, the Examiner states that “[i]t is implicitly true for square or rectangular type of pixel section, the same definition analysis disclosed above also applied for the second direction of the matrix to allow the image being resolved by the eyes of the observer to achieve stereoscopic viewing. However, due to the nature of the eyes being separated on the human

body by a distance in the horizontal direction, stereoscopic viewing cannot occur in the vertical direction as alleged by the Examiner.

Thus, Applicants submit that claims 2, 4, 15 and 17 are allowable for this additional reason.

Claim Rejections - 35 U.S.C. § 103(a) - Claims 5 and 18

The Examiner rejected claims 5 and 18 as being unpatentable over Ichinose as applied above, in further view of Chikazawa (US 5,852,512). Applicants respectfully traverse this rejection.

Because Chikazawa fails to provide a motivation, teaching or suggestion to make the above modifications attempted by the Examiner with regard to Ichinose, this rejection should also be withdrawn as the Examiner has failed to establish a *prima facie* case of obviousness. Thus, Applicants submit that claims 5 and 18 are allowable over the applied combination.

Claim Rejections - 35 U.S.C. § 103(a) - Claims 1, 3, 6, 8, 11-14, 16, 19, 21 and 24

The Examiner rejected claims 1, 3, 6, 8, 11-14, 16, 19, 21 and 24 as being unpatentable over Momochi (US 5,528,429) in view of Ichinose. Applicants respectfully traverse this rejection.

Again, as discussed above with regard to the Ichinose rejection, in this rejection under Momochi and Ichinose, the Examiner fails to provide any motivation, teaching or suggestion to combine the minimum angle of separation with the derived mathematical expression shown on page 11, fourth paragraph, of the Office Action. Thus, because the Examiner has failed to establish *prima facie* obviousness, Applicants submit that claims 1, 3, 6, 8, 11-14, 16, 19, 21 and 24 are allowable over the applied combination.

Claim Rejections - 35 U.S.C. § 103(a) - Claims 2, 4, 7, 9, 15, 17, 20 and 22

The Examiner rejected claims 2, 4, 7, 9, 15, 17, 20 and 22 as being unpatentable over Momochi (US 5,528,429) in view of Ichinose as applied to claims 1, 6, 14 and 19 above, and in further view of Isono. Applicants respectfully traverse this rejection.

As discussed in each of the rejections above, neither Momochi, Isono nor Ichinose provide any motivation, teaching or suggestion to combine the minimum angle of separation with the derived mathematical expression. Thus, because the Examiner has failed to establish *prima facie* obviousness, Applicants submit that claims 2, 4, 7, 9, 15, 17, 20 and 22 are allowable over the applied combination.

Claim Rejections - 35 U.S.C. §103(a) - Claims 5, 10, 18 and 23

The Examiner rejected claims 5, 10, 18 and 23 as being unpatentable over Momochi and Ichinose as applied to claims 1, 6, 14 and 19 above, and in further view of Chikazawa. Applicants respectfully traverse this rejection.

Because Chikazawa fails to compensate for the above noted deficiency with regard to the Momochi/Ichinose combination, Applicants submit that claim 5, 10, 18 and 23 are allowable, at least because of their dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111
U.S. Appln. No. 10/782,928

Atty. Dkt. No. Q79936

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D P Emery', written over a horizontal line.

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